

CLAIMS

1. A method for preparing a particulate composition having improved average strength of particles comprising contacting a particulate starting material with a liquid and subjecting the mixture to high shear at a rate substantially avoiding agglomeration of particles.
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2. The method of claim 1 further comprising the step of isolating a fraction of particles comprising, containing or consisting of unbroken or whole particles from the particulate starting material having a higher average particle strength than the particles of the particulate starting
10 material.
3. The method of claim 2 comprising:
 - (a) providing a particulate starting material to be improved
 - (b) providing a liquid
 - 15 (c) subjecting the particulate starting material and liquid to high shear treatment wherein the amount of liquid added and the high shear rate is adjusted as to substantially avoid agglomeration of particles and
 - (d) separating a desired fraction of particles wherein the desired fraction of particles obtained by separation has a higher average particle strength compared to the same fraction obtained from the starting particulate material provided in (a).
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4. The method according to claim 1, wherein the particulate starting material is characterised by having a particle size of at least 50 µm.
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5. The method according to claim 1, wherein the particulate starting material is characterised by having a particle size of at least 100 µm.
6. The method according to claim 1, wherein the particulate starting material is characterised by having a particle size of at least 200 µm.
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7. The method according to claim 1, wherein the particulate starting material is characterised by having a particle size of less than 800 µm.

8. The method according to any of the claims 1 to 7, wherein said particulate starting material has a density of at least 1.3 g/cm³.
- 5 9. The method according to any of the claims 1 to 7, wherein said particulate starting material has a density of at least 1.5 g/cm³.
10. The method according to any of the claims 1 to 9, wherein the particulate starting material is granules comprise an active compound.
- 10 11. The method according to claim 10, wherein the active compound is an enzyme.
12. The method according to claim 1, wherein the particulate material is selected from the group of salt and sugar.
- 15 13. The method according to any of the claims 1 to 12, wherein the liquid is water or oil.
14. The method according to any of the claims 1 to 12, wherein the liquid is aqueous.
- 20 15. The method according to any of the claims 1 to 12, wherein the liquid is a saturated solution of one or more of the compounds present in the particulate material.
16. The method according to claim 13, wherein salt, carbohydrates, binders, fibres, fillers, or other conventional coating materials are added to the liquid.
- 25 17. The method according to claim 1, wherein the particulate material is water soluble.
18. The method according to any of claims 1 to 17, wherein the high shear treatment performed in a high shear mixer and the applied shear is in the range of 0.5 and 3 s⁻¹.
- 30 19. The method according to any of the claims 1 to 18, further comprising the step of drying the high shear treated particulate material.

20. The method according to any of the claims 1 to 19, wherein the particulate material and liquid are exposed to high shear until at least 5 % of the particles are destroyed or broken down to a size outside the size distribution of the particulate starting material.

5 21. The method according to any of the claims 1 to 20, wherein the shape factor, ξ , of the particulate starting material is less than 0.5 and greater than 0.5 after the high shear treatment.

22. The method according any of the claims 1 to 20, wherein the shape factor of the particulate starting material is improved by at least 0.1.

10 23. A particulate composition obtainable from the method of claims 1-22

24. The composition of claim 23, wherein 95 wt % of the particles are capable of withstanding 20 kPa in an AJAX standard attrition shear cell.

15 25. The composition of claim 24, wherein the particles are enzyme granules

26. The composition of claim 24, wherein the shape factor, ξ , of the particles is greater than 0.5

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